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This is an informal appraisal of differences between lecture method and individual instruction. In an experiment, known underachievers were combined at random with regular enrollees. The instruction method (contingency contracting) emphasized increased student motivation by making the student-teacher relationship cooperative instead of authoritarian. Teachers fulfill their part of the contract by giving individual help; students, by performing the assignments. It was noted that (1) no correlation existed between IQ and performance; (2) teachers must reject their accustomed teaching habits; (3) students must be aware of methods, objectives, and criteria; (4) the underachievers and the control group were not dissimilar enough for contrast; (5) factors besides ability are critical to college success. These factors pertain to the teacher--he must know his students, motivate them, and avoid isolating himself from them. Students reported growth in valuing learning for its own sake, in self-management, in wanting to work, and in appreciating teacher concern, individual help, freedom from pressure, and being treated as mature people. Drawbacks were (1) previous instructor and student conditioning, (2) lack of individualized teaching aids, (3) inflexible school architecture, (4) traditional units of teaching time, (5) doubts c the efficiency of individual instruction. Appended are the student-teacher contingency contract and the student assessment questionnaire. [Not available in hard copy because of marginal legibility of original.] (HH)

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Title: Teaching the High Ability, Low Achieving Student: Individualized Instruction in Action

Subtitle: An Attack upon Human Isolation

A speech delivered before the A.A.J.C. national convention of deans of instruction at The University of California, Los Angeles on July 16, 1969

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INFORMATION

Every educator ought to be an experimenter, a searcher for knowledge and an innovator in instructional methods. Particularly is this so now - in an age of social turmoil, in a time of technological change, in a period of population growth, in a psychological climate of isolation. So expanded have our schools become in size, so varied are the pressures placed upon them, so discomforting are the confusing alternatives from which to make decisions, that educators often do not know what to consider first.

Perhaps the greatest problem that we face today is sheer numbers-- of people. We are so attuned to quantity as a primary consideration, that we often. and inadvertently, overlook quality. We are so taken with groups that we overlook the individual. We are so surrounded by myriads, that each of us, in order to survive, consciously or subconsciously seeks isolation.

A pertinent question for us to consider is what is this isolation? Is it a wholesome preservation of individuality? Is it escape? Is it a vacuum created by poor or no communication? Is it the cold remaining when human warmth and concern are absent? Is it the failure of outstretched hands to touch? Is it the result of ideas which pass each other, failing to interact? Is it ignorance -- of parent and child, of group and group, of scientist and humanist, of -- educator and student?

I am here to report on "Teaching the High Ability, Low Achieving Student: Individualized Instruction in Action," but I cannot do so without considering my most important finding-- that, for years, I did not know my students. We were isolated from each other. Let me describe two students with whom I worked in an experimental class to illustrate how the absence of isolation had positive effect.

When Betty C., an eighteen year old girl, first entered junior college, she was required to enroll in a remedial English class on the basis of her poor performance in the school's English Placement examination. Betty C. needed the help of a remedial class: she could not write sentences correctly, organize coherent unified paragraphs, or compose her ideas in orderly fashion. She completed the remedial class with a "C" grade and was permitted to enroll in freshman composition for the following semester.

By chance, she enrolled in my class, taught by an individualized method. Betty C. revealed during diagnostic testing that she still had great difficulty in organizing her thoughts effectively. For weeks, she and I worked together intensively. She wrote and rewrote her ideas in a variety of combinations until, finally, she began to express herself logically and clearly, not expertly, but acceptably.

What was Betty C. like? In trite phraseology, she could be described as "a pretty little thing." She was the sort of student who hides in the classroom as best she can. We all know the type: the one whose name we never learn, the shy non-entity, the number in the grade book. Betty, as I indicated. needed help, not the sort of help one can deliver in a lecture or in an assignment to "go study so and so." She needed personal talk, an infusion of confidence, a gesture of interest. She received these things from me and she profited.

In the same course, there was Mary B. who had also completed a remedial class the previous semester, but she had earned an "A". Mary B.'s diagnostic writing revealed that she could perform well, at the standard expected of students who complete freshman composition successfully. She did not need much attention from me. I permitted Mary B. to pursue largely independent

study and she produced a semester project that was splendid in quality, as good as some graduate papers I have seen.

What was Mary B. like? She was a mature woman with a family, well-adjusted, confident, outgoing. She was, moreover, a capable, conscientious student-- and she loved Shakespeare. After Mary qualified successfully in the basic diagnostic testing required of all students, I permitted her to pursue Shakespeare. We met in person, talked on the telephone, and sometimes she even wrote me postcards to reveal a discovery that she "had to reveal that very minute."

When Mary evaluated the class at the end of the semester, she was embarrassingly effusive with praise for the class. "This was the first time in my life," she wrote, "that I had a chance to learn what I needed to learn and, at the same time, to do what I wanted to do. I wish every class could be conducted like this." Mary B., I might add, produced a study in depth beyond any reasonable expectation from a student in a freshman composition class.

Betty C., Mary B. and I learned more about learning and teaching in that first experimental course than any of us would have imagined a few months before. I helped them both to realize some of the purposes for which they were attending college. They helped me to learn how to teach people more effectively than I had ever dreamed possible.

I delight in reporting experiences such as those with Betty C. and Mary B. On the contrary, how different are my recollections of the fourteen years during which I taught by conventional methods. When I began teaching English in September 1953, I conscientiously undertook the transmission of the prescriptions, proscriptions and literature of our language. I lectured, conducted discussions, counseled and graded my students to do those things with language which I had been taught to do. Although I soon learned that students performed quite differently in the identical classroom environment,

I was not discouraged. I strove to make my instruction more and more clear, hoping that, in time, I would increase the number who showed interest and success in their work.

Unfortunately, I did not meet with great success. Although some students did do well, as many or more did poorly. I was happy to take credit for the successes, but I attributed the failures to defects in the students, not to my methods of instruction. In sum, I failed as many students as I helped, discouraged as many as I motivated, and understood the human qualities of practically none, either successes or failures.

It is possible that my "blind" instructional methods might have continued throughout my professional life; or I might, instead, have departed in frustration from education; OR some equally frustrated student might have "ended" my career in order to complete his application for membership in the Society for the Extinction of Incessantly Expository Group Instruction.

In December 1967, I was offered an opportunity to experiment with instruction in freshman composition. Marie Y. Martin, President, and Ray Johnson, Dean of Instruction, of Los Angeles Pierce College, asked me if I would work with Atilla P. Csanyi of Westinghouse Learning Corporation to see if Pierce's course of study could be adapted to Westinghouse's method of instruction. The idea, I might add, was proposed originally by Stephen Sheldon, Director of the U.C.L.A.- Danforth Cooperative Junior College Program. I accepted the opportunity. I had few reservations, for I was far from satisfied with my existing instructional methods.

What were we going to do? The plan was to investigate whether individualized instruction would appeal to students whose records in high school showed them to be high in ability and low in achievement. To control the experiment, we would combine these underachievers in the same class with students who enrolled

in random fashion. Selection of the experimental group, the underachievers, was made on the basis of certain criteria; I had no part in that process.

My own first task was to familiarize myself with the proposed method of individualized instruction, contingency contracting. I soon learned that it is a system which emphasizes increasing motivation among students by transforming the instructor-student relationship into a cooperative rather than authoritarian one. It stresses the individuality of the student as much as the course of instruction.

When a course based upon positive contingencies is introduced, the student is informed, before he undertakes any work, of what he is expected to learn and to do (objectives), how the instructor proposes to help him (methods), and how his performances and learning are evaluated as to quality (criteria). Furthermore, the student learns that he and the instructor will share responsibility for selection of his required work-- and that such selections will be based upon his needs.

Initially, the instructor conducts diagnostic testing (pretests) to determine what the student knows and what he can do; thus, inductively, the student learns about the gaps in his knowledge and the weaknesses in his performance. It is at the time of student awareness that the instructor contracts[1] with him to help him learn. The instructor fulfills his part of the contract by providing the student with individualized help; the student fulfills his part by performing the assignments. This approach encourages the student to behave purposefully because he can understand precisely why he is asked to perform his tasks.

During my introduction to contingency contracting, I learned that it had already been used successfully at the elementary and secondary levels. In a handbook published for use in training teachers, the rationale for the system was clearly stated. I quote:

[1]See Appendix A.

> One of the major problems educators and parents have faced throughout the ages has been that of motivating children to perform tasks, whose desirability was determined by these adults. Traditionally, Negative Contingencies have been favored to achieve this goal. The 'contract' in such cases is: 'In order to avoid punishment, you must perform such and such a task.' The method advocated in this program is, on the other hand, the method of Positive Contingencies. The 'contract' in this case would take the form, 'as soon as you demonstrate that you have learned a little more, you may do something which is even more exciting.'
>
> .....The ultimate objective of behavioral motivation technology is the shifting of motivation management to self-management techniques.
>
> .....The reason for bringing up the 'ultimate objectives' at this time is to reassure those teachers who may be dubious about the whole area of motivation management. They may be saying to themselves, 'Students should be motivated by a desire to succeed, not by the promise of a reward,' or 'This sounds like bribery to me.' Or the teacher may be thinking, 'If I apply contingency contracting systematically now, won't the child grow up expecting rewards for every little thing he does?'[2]

As I faced the problem of applying the system to freshman composition in junior college, I was perplexed, initially, by the question of what positive contingencies to select for the student of this age and maturity. Obviously, I couldn't offer candy, games, or prizes for success in performance, although some such silly notion did pass through my mind. I decided, finally, that I needed to persuade each student that this experimental approach was not a gimmick. I was not proposing to "package the same product in a new container." I was offering the formation of many partnerships in which each student would work on his own behalf in cooperation with the instructor. I was offering not just instruction, but my personal concern for the welfare of each and every member of the class. I resolved to project these ideas as earnestly as I could.

[2]Lloyd Homme and Attila P. Csanyi, Contingency Contracting (New Mexico, 1967), pp. 4,5.

What did I do to introduce the course method when I finally met an experimental section? First, I told each student that I valued his presence in the class and that my purpose was to keep him there so he could succeed. Second, I informed him that despite the existence of general course objectives, he would perform within a framework of his own weaknesses and strengths. Third, after testing him to determine his need for instruction, I would ask him to perform assignments prescribed specifically for him. Fourth, I would not assign him low grades on poor initial performances (negative contingencies); but, instead, I would delay grading until he had had a chance to learn. Fifth, I advised him that the semester as a boundary of course length did not necessarily apply. Instead, he could work at a rate compatible with his own abilities and initiative: in essence some people would finish their work sooner than would others.

Sixth, each student was provided with a handbook which described all of the course units and which clearly stipulated objectives, criteria and prescriptions for each unit. Seventh, he was informed that regular class attendance was a function of need: he would attend as much as, but no more than, necessary because the instructor hoped he would grow in self-management ability. Eighth, the student was advised of the plan to limit large-group sessions to a minimum and to place great emphasis upon the instructor-student conference.

Reaction of students to these positive contingencies the first time (Spring 1968) the experimental class was offered was positive.[3] The second time (Fall 1968) the course was offered, student reaction was equally good:

[3]See Appendix B for a copy of the questionnaire used to obtain their reactions.

CHART I

RESPONSES DURING FALL, 1968
SEMESTER TO ORIENTATION UNIT BY
STUDENTS FROM THREE SELECTED JUNIOR COLLEGES

Question Asked	Responses Elicited	
	Number	Percentage
Positive response to method?	142	91.6
Positive response regarding self-management or independence?	137	88.3
Negative response to traditional methods of instructor control -- as a contrast to the experimental method of this class?	104	67.1
Positive response to opportunity to select own assignments?	117	75.4

At Pierce College, final student performance during Fall 1968 related well to these initial reactions. There was a group of eighty students of which 44 were specially selected underachievers directly from high school. The remaining 36 were people who had either scored well in the English Placement examination or who had completed one or more remedial classes before enrolling.[4]

Sixty-seven completed the class at or before the semester's end. Among these, 8.90 per cent earned "A"; 19.40 per cent, "B"; 54.17 per cent, "C"; 5.97 per cent, "D"; and 1.49 per cent, "F".

Of the remaining thirteen students, the results were as follows:

1. Two dropped out of school to take full-time employment early in the semester.
2. Four left school in anticipation of military service.
3. Three completed their work during the following (spring 1969) semester, two with grades of "B" and one with a "C".
4. One who was seriously ill for some time is still working to complete and is doing very well.

[4]Approximately 10 per cent of Pierce College students pass the examination with a high enough score to take freshman composition (English 1) without first being required to complete one or more remedial classes.

5. One, I recently allowed to withdraw without penalty after receiving a note from his psychiatrist.
6. Two, I graded with an "F" because I became convinced that they were not performing, nor was there a reasonable explanation for their behavior.

A brief interpretation of these data is in order. First not one student "dropped out" of the class who did not also drop out of school completely! Second, the three students who completed late had personality problems and clearly would not have finished at all without the attention I gave them. Furthermore, two of these students have, in my judgment, been materially and perhaps permanently influenced in a positive manner. Third, I managed to learn why my students performed as they did. Not one, I am pleased to say, had negative reactions to the conduct of the class.

Student performance during the spring 1969 semester compared favorably with results of the previous semester. The grade "A" was earned by 13.9 per cent; "B" by 25.3 per cent; "C" by 50.7 per cent; "D" by 1.2 per cent; and "F" by 8.5 per cent. Six students withdrew from the class and from school, thereby receiving the grade of "W", and four students are presently incomplete but should finish soon.

The spring 1969 results deserve some explanation. Of the 8.5 per cent "F" students, only one actually completed the work of the class and earned an "F" performance; the others withdrew from school unofficially but I held them to the final grade requirement because I could discover no legitimate reason for doing otherwise. Finally, the underachievers, as a group, did not do as well as did the other students.

CHART II

COMPARISON OF UNDERACHIEVERS AND CONTROLS IN SPRING 1969 FRESHMAN COMPOSITION

Final Grade	Total Number	Number of Controls	Number of Underachievers
A	10	9	1
B	18	12	6
C	36	16	20
D	1	0	1
F	6	3	3
W	6	3	3
Inc.	4	3	1
TOTALS	81	46	35

Of further interest, may be knowledge of how the intelligence levels of the underachievers correlated with their final grades. These data follow:

CHART III

COMPARISON OF LEVELS OF INTELLIGENCE
OF UNDERACHIEVERS WITH THEIR PERFORMANCES IN
SPRING 1969 FRESHMAN COMPOSITION CLASS

Final Grade	Number of Underachievers	Intelligence Levels Taken from High School Records
A	1	117
B	6	116: 120: 124: 125: 129: 147:
C	20	116: 116: 116: 117: 117: 118: 118: 118: 119: 120: 121: 122: 122: 123: 123: 123; 123: 129; 134; 134;
D	1	117
F	3	116; 116; 116;
W	3	119; 122; 123
Inc.	1	125

What sense may be made of these data? First, let us review:

1. The performance of the underachieving students was not as good as that of the control students.

2. The performance of the underachieving students did not correlate with their recorded levels of intelligence.

Too easily, one might conclude from these data alone that, therefore, the experimental class did not provide any particular appeal for the underachievers which is related to ability. However, an important factor is missing. What are the levels of ability of the control students? These data were never gathered for the experiment itself, but proper assessment of results demands that they be included now. The findings follow.

CHART IV

COMPARISON OF LEVELS OF INTELLIGENCE OF CONTROL STUDENTS WITH THEIR PERFORMANCES IN THE SPRING 1969 FRESHMAN COMPOSITION CLASS

Final Grade	Number of Control Students	Intelligence Levels Taken from High School Records
A	9	100; 104: 111: 117: 119; 124: 126; 134: one only h.s. g.p.a. of 3.23
B	12	90; 98; 103; 107: 108: 111; 112; 112; 122: 138: two no data college transfer students
C	16	90; 95; 97; 99; 104: 107: 108; 109; 111; 112; 115; 116; 117; 119; 126; 128
D	0	none
F	3	101; 119; 135
W	3	110; 117; one no data
Inc.	3	97: 121: 136
TOTAL	46	

Additional comparison may be desirable. How do the distributions of intelligence level compare between the underachievers and the control group?

CHART V

COMPARISON OF LEVELS OF INTELLIGENCE BETWEEN UNDERACHIEVERS AND CONTROL STUDENTS IN THE SPRING 1969 FRESHMAN COMPOSITION CLASS

I.Q. in Groups of 10	Number of Underachievers	Number of Control Students
90-100	0*	8
101-110	0*	10
111-120	17	13
121-130	14	6
131-140	2	4
141+	1	0

*The selection procedure limiting underachievers to those with high ability precluded students in this category.

What meaning may be attributed to these data now? First, my tentative earlier conclusion about the experimental class not producing differences in appeal to the underachievers on the basis of their ability alone, appears to fit the control group too. In neither group does level of ability correlate with final grade. The single underachiever earning an "A" had an I.Q. of only 117 while among the controls who earned "A" the I.Q. range was 100--134. The grade of "B" was earned by underachievers ranging from 116 147; among controls, 90-138. A "C" grade was earned by underachievers ranging from 116-134: by controls, 90-128. One underachiever with I.Q. of 117 earned "D" while no controls did. Three underachievers earned "F", all with I.Q. of 116: controls earning "F" ranged from 101-135.

Second, was the experimental design valid? Its purpose was to enable comparison of specially selected underachievers of high ability directly from high school, with a control group enrolling randomly in the same college freshman composition class. The answer appears to be that, although the design appeared reasonable, no effective comparison was made because the two groups were not dissimilar enough. In addition, seventeen of the underachievers were in the I.Q. range of 116-120. The standard deviation of the normal curve being 10 I.Q. points, it is questionable, therefore, as to how many of them may be labeled underachievers of high ability as opposed to normal. Furthermore, it was not possible to control the random class enrollments: therefore, the distribution of ability among the controls ranged from 90 138 I.Q. How different is this from the underachievers' ~~range 136 I.Q. How different is this from the underachievers'~~ range of 116-147 I.Q.? Finally how effective is the "contrast" when we learn that the modal range for each group is the same, 111-120 I.Q.?

Third, I think we must ascertain the meaning of the term, "underachiever." Presumably, it means simply, "a person who is not performing as well as one might predict from his ability as recorded on an objective test." It cannot mean "gifted" in this study because only three underachievers had I.Q.'s above 130, which is the commonly accepted point above which the gifted are distinguished from the normal. Furthermore, four of the controls, to confuse the matter further, scored above 130 in I.Q., and of these four, one earned an "F" and the other is still working. Cannot these two controls, potentially gifted, be called underachievers? Cannot two additional controls with I.Q.'s of 126 and 128, who earned only "C" be termed underachievers too?

From all of these data, I conclude that the groups in the experimental class were more similar than dissimilar, and that, in effect, we have not been studying the effects of an experimental system upon a high ability-low achieving group vs a group with normal abilities. What we have been studying is the effects of a system of instruction upon junior college students among whom some differences might randomly exist.

Before I proceed to introduce additional data for consideration, I wish to repeat some facts reported earlier, to emphasize what I consider an important finding of this study: the positive effects of this individualized system of instruction upon the performance of junior college students.

CHART VI

GRADES EARNED BY ALL STUDENTS ENROLLED IN AN INDIVIDUALIZED FRESHMAN COMPOSITION CLASS OFFERED FALL 1968 AND SPRING 1969

Grade Earned	Fall 1968 (Per Cent)	Spring 1969 (Per Cent)
A	8.90	13.90
B	19.40	25.30
A+B	28.30	39.20
C	64.17	50.70
D	5.97	1.20
F	1.49	8.50
D+F	7.46	9.70
W in numbers	8	6
Inc. in numbers	6	4

I make the simple assertion: this high a level of grade distribution in a freshman composition class in junior college is unusual. It is unusual for me; it would be unusual for my colleagues. The percentage of "A" and "B" grades is high; the percentage of "D" and "F" grades is low. Perhaps comparison between these grades and grades which I assigned to students in freshman composition classes which I taught in conventional fashion before I began to experiment would be useful.

CHART VII

GRADES IN TWO FRESHMAN COMPOSITION CLASSES ASSIGNED BY SCHULMAN DURING THE FALL 1967 SEMESTER - 65 STUDENTS

Assigned Grade	Number of Students	Percent of Total
A	2	3.0
B	8	12.3
C	30	46.1
D	12	18.46
F	9	13.8
Inc.	2	3.0
W*	2	3.0

*The W does not account for early semester drops.

When I collected the data for this report, I was honestly surprised at how different the grade distributions were from those in my individualized classes. To provide further contrast, I wish now to report grade distributions in freshman composition for my entire English department during three semesters chosen at random.

CHART VIII

GRADE DISTRIBUTIONS IN FRESHMAN COMPOSITION OF PIERCE COLLEGE ENGLISH DEPARTMENT DURING THREE SEMESTERS SELECTED AT RANDOM

Grade Assigned	Fall 1965		Fall 1966		Spring 1968	
	Number	Percent	Number	Percent	Number	Percent
A	9	1.5	16	3.1	33	5.2
B	85	13.44	101	19.3	143	22.4
C	249	41.0	220	42.37	265	42.4
D	133	29.0	68	13.1	67	10.4
F	44	7.6	33	6.21	16	2.34
Inc.	4	0.63	5	0.93	23	3.41
W*	96	15.3	72	13.5	83	13.11

*The W does not account for early semester drops.

Once again, the difference in grade distribution between the classes taught by individualized instruction and those taught by more conventional methods is clear. However, it is also apparent that grades have improved among the classes taught by my colleagues too, for many of them have shown increasing interest in experimentation during recent years. However, to return to the experimental system, something has been happening as a result of individualization that has led to higher performance than occurs in conventionally conducted classes. Furthermore, this difference, whatever it is, cannot be attributed to ability factors, as has already been demonstrated. Is further evidence required to demonstrate that ability as a predictor of success in the junior college leaves much to be desired? Let us see.

I would like to digress briefly from the data about the experimental program in order to report the results of some studies I performed a couple of years ago which had nothing at all to do with English instruction. During the school years 1966-67 and 1967-68, I examined the records of 470 students who had been placed on probation after one semester of attendance at Pierce College. Their grade point averages were less than 2.0: "D" averages. My purpose was to ascertain whether data concerning their ability correlated with their poor performance.

Included in the data examined were full-scale I.Q. tests, high school grade point averages, full-scale achievement test scores, and ratings in the English Placement examination at Pierce College.

Succinctly, I found absolutely no correlation between the ability data and performance in college. The I.Q. range of the group, for example, was 65-139, with the mode and median falling within the normal range, 90-110. There were low to respectable high school grade point averages, low to high Pierce College English Placement scores and so on. I reiterate: there was no correlation between the ability data and college performance.

To obtain more data for assessment of this vital question, in 1967-68, I performed another study to ascertain if there were any differences between the probationary group and another group from the same freshman class who had not been placed on probation, whose performance after one semester was "C" average or better. The members of the second group were randomly selected. Once again, I found no significant correlation between ability data and acceptable performance in college. The I.Q. range was 65-145, with the mode and median falling within the normal range. Finally, I found no significant differences between the ability data of the probationary group and the group which had performed acceptably.

If ability data do not suffice to enable prediction of success in junior college, and if, as I have said, I espouse the thesis that an individualized system has positive effects upon student performance, what are the critical factors? May I introduce additional findings in the attempt to explain?

During spring 1968, the first time I used the experimental method, I transferred one student from a remedial English class to the experimental composition class. I made this transfer during the eighth week of the semester, at the proper time for him, because he would not have been ready for freshman composition earlier in the semester. He earned a "B" in the class.

During the spring 1969 semester, I moved three students from an evening remedial class which I was teaching into the day experimental class, not requiring them to attend day meetings of the class -- which they could not have done in any event because of work commitments. I made this change after six weeks. These students earned grades of "A," "A" and "C." What, I ask again, are the critical factors?

May I review the ideas and data presented thus far? I wish to make my argument very clear. One, I confessed that I now reject teaching methods which I used for fourteen years of my life. Two, I described the system which departs from my traditional method of instruction. It involves

individualized instruction within a course framework; it includes clear stipulation of objectives, methods and criteria to inform the student fully. Three, I described an experimental design which I followed to compare underachievers and control students, and reported performance ratings. Four, I cast doubt on the experimental design itself, showing that the group of underachievers and the group of controls were, in fact, not dissimilar enough to be contrasted in ability. I showed that some of the underachievers could have been labelled normal because of the standard deviation of 10 I.Q. points within the normal curve; conversely, the I.Q. ratings of some of the control group could support labelling them "underachievers."

Five, I reported studies of two groups of students at Pierce College and showed that the fact that one group had been placed on probation and the other not, could not be attributed to ability data available in their high school records.

Six, I revealed that I had allowed four students, in two different semesters, to enroll in the individualized freshman composition classes very late, and they had succeeded, nevertheless, in meeting the requirements of the course of study. Finally, I showed that overall, student performance in the individualized classes had been good.

What is the denouement of my story? The most important finding is that student performance in the experimental classes, taught by an individualized method, was good. Furthermore, I believe that this finding is the quintessence of the matter, for anything less than good student performance is tragically wasteful. If my data are valid and reliable, then factors other than ability alone are critical determiners of success in junior college. Perhaps these factors may be stated simply:

1. The instructor in junior college must motivate his students.

2. The instructor in junior college must know the character of his students before he can motivate them.
3. The instructor in junior college must not isolate himself from his students and simply offer his subject: he must teach to the human equation present in all of us.

What are junior college students like? A year ago, when working on introductory material to the course of study for this experimental freshman composition program, I examined this question carefully. May I review some of the ideas I then expressed? Many junior college students underachieve, whether they be normal or superior in ability. They demonstrate apathy and/or antagonism toward education. The apathy is revealed by a high degree of unresponsiveness, a feeling of 'Does it matter whether I succeed or not?' Apparently, they have not derived much pleasure from the educational experience, they lack any certain level of aspiration, and they have learned to live with their tendency "to cop out." Many of them show a feeling of antagonism because they believe that educators do not care about them as individuals. They resent the molds into which all students are 'poured' without reference to their personal or educational needs.

The results of these attitudes are tragic, for one of the most perplexing problems facing junior college educators is the waste of human and financial resources. The rate of dropout in freshman composition classes is far too high. This problem exists despite the offering of several levels of remedial classes within many schools. For example, 80 to 90 per cent of students are required through placement tests to complete one or more remedial classes in some schools -- before taking college-level work! In the face of so much remediation, efficient instruction is needed. Presumably, if students can be persuaded that the college is concerned with their retention and success, not with just giving them the opportunity to fail, they may put forth greater effort than they do under a more impersonal system.

I would like to elaborate a bit about the impersonality of our junior colleges. We tend to think too much, as I said earlier, about sheer numbers of students. As a former administrator in the Office of Admissions and Guidance at Pierce College, I remember, too often, being concerned with how many students could be counseled in an hour -- as opposed to how high the quality of counseling was for the individual student. I remember being concerned with such other matters as how many students could be "run through the line" in registration in a given length of time -- as opposed to how much help the confused individual might be getting.

I know that college administrators are often too much taken by the question of how many students can be enrolled in a class -- as opposed to how many ought to be enrolled in this subject or that. The emphasis is too often upon how many students an instructor is teaching rather than how well he is teaching them. The instructor, too, is much concerned with how many assignments he can give and still manage the work of his class. His classroom is filled to bursting. He feels oppressed and, thus, he isolates himself from his students with excessive objectivity. He fails to focus upon the individual. As often as not, he never knows his students at all, except as test or paper writers.

What are the solutions to these problems? How can our gigantic educational enterprise account for all the individual variations among students which exist? There is only one answer that I can supply: Administrator, Counselor, Teacher, know thy student.

I argue further: How can educators today, in these disordered times, afford not to place some value upon human variations? We are not able to train alphas or betas or gammas à la Huxley, nor would we want to do so. We are not able to "ring the bells," as did Pavlov, in order to stimulate some sort of standardized mental salivation.

We are, or ought to be, in the business of raising the quality of human existence, of encouraging attitudes of inquiry, of stimulating self motivated behavior. We cannot hope to do so until we persuade our students that we are concerned with their human needs. We cannot hope to do so until we know our students!

Perhaps a few examples of individual problems I uncovered in the experimental English course may illustrate the importance of focus upon the individual.

H.C., a young man, 18 years old. He demonstrated a peculiar pattern of omitting the ends of words among other errors. It was so persistent that I suggested he visit a doctor. He did, obtained new eyeglasses, and, with tutoring, began to show improvement.

D.R., a young lady, 19 years old. She wasn't performing well, nor was she attending class as required. She had had a sharp break with her family because of a boy. She was living with the boy out of wedlock and was under enormous pressure from both the boy and her family.

J.R., a young man, 18 years old. He was an unreliable personality, admitted to a persistent pattern of procrastination. Appointments meant nothing to him, nor did his own promises. Persistent, intensive individual conferences did have a positive impact.

There are other cases, many cases--far too many. One problem I encountered many times was the "I have to work to support myself" syndrome. I do not know what the statistics are, but I venture to say that too many students work too many hours while attempting the equivalent of full college loads, and, unfortunately, few of them can do so successfully. Many of these students, I have learned, can be helped to succeed in spite of themselves by the instructor who shows interest.

I have said a great deal about how I feel about individualized instruction, but how did the students feel? In a final questionnaire given to all students who completed the course, they supplied the answers. They indicated growth in such characteristics as valuing learning for its own sake, self-management ability and wanting to work: and they expressed appreciation for instructor concern, individualized help, freedom from pressure, and treatment as mature individuals. Furthermore, no substantial changes in course organization were recommended by a majority of the students, but a few said that they would have liked more conferences than they thought the instructor was able to have.

However, lest anyone think that individualized instruction is a simple panacea, I wish to review some of the problems encountered in the development of this one instructional system for a junior college-- despite a friendly and cooperative college administration, despite the encouragement of many of my colleagues in the English Department, and despite the advice and help of many talented people not affiliated with Pierce College.

First, and foremost, is previous student (and instructor) conditioning. Simply, most educational systems do not encourage students to become independent, self managed individuals. Generally, they are told what to do, when to do it, and how to do it. In addition students are usually required to undertake the identical performances whether they need to or not! Thus, many people in my experimental classes had great difficulty with self-management. Time after time, I found it necessary to deal with failure to meet obligations as agreed.

Second, there is not readily available enough good individualized instructional material on the college level. For example, it was necessary to utilize two separate textbooks as well as to create other materials in a Student Handbook for English Composition in order to make the system workable. Furthermore, there are generally available few helpful filmstrips, slides, films, records or other paraphernalia.

Third, it is generally true that school architecture and furnishings are not too well suited to individualized instruction. For example, during fall 1968 and spring 1969, I was assigned a room with fixed seats, all facing in one direction, to accommodate my large classes, over 80 students each. This large a space was not needed for more than a few large-group meetings, yet we utilized it for an entire semester. Furthermore, no one was at fault, for room space was heavily utilized and no better place was available. Greater flexibility of architecture is needed, with rooms and furnishings which may be readily adapted to groups of various size or to a variety of different functions. Structural features such as soundproof movable walls or more effective juxtaposition of large and small interior spaces would help.

Fourth, another difficulty in implementing individualized instructional systems which must be overcome is tradition. Most faculty members and administrators are accustomed to instructional organization dependent upon fixed units of time such as semesters or quarters. Built into such organization is the premise that a given amount of time is needed to complete instruction in a course of study. Ignored, however, is the fact that students learn at different rates and in different ways. I feel that the potentialities inherent in individualized instruction are severely limited by this tradition.

A final problem to be dealt with, is overcoming the uncertainty which educators feel about the efficiency of individualization. Experienced instructors know that they can teach "X" number of students within a given semester, that they can read "X" number of papers and administer "X" number of examinations -- and still maintain their sanity. On the other hand, I have often heard such questions as "Can you really give the students enough individual time and still complete the work? Doesn't it take much longer to read a set of papers if you have to prescribe individually? Isn't the time lost in group discussion important?"

I have no "proof" to answer questioners. I have only a few questions of my own to ask: While you are lecturing or conducting discussions, how many of your

students are taking part or even listening? How many papers have you read that contained the same errors you found in earlier papers by the same students? When you are teaching sentence structure, pronouns, usage, punctuation or what-you-will to a group of forty students, how many of the forty at that time and in that place need that material? How many of your students could learn more rapidly than you are teaching? How many students who failed to learn in your classes could have learned much more, had they been given more time?

Although I have no ultimate answers to offer doubters, I do have some convictions. I believe that it is difficult for the instructor who teaches only "groups," to know how many individual students are really learning -- until, often, it is too late to effect significant changes. With an individualized approach, however, an instructor learns about his students' problems quite rapidly and he is able to prescribe remedies efficiently. He has greater opportunity to persuade each person that his assigned work has value and he is able to observe each person's progress quite closely, and as often as necessary. He also has the opportunity to uncover personal problems which a little understanding and warmth can sometimes do much to rectify. I like the changes which I have seen take place in my students and in me because, together we have managed to destroy some of the isolation which threatens us.

The future of individualized instruction is important!

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APPENDIX A

AGREEMENT BETWEEN STUDENT AND INSTRUCTOR

The Instructor affirms the intent to conduct a freshman course in English composition which is oriented to the individual student herein named. Said student will be given a diagnostic pre-test to determine his specific instructional needs. Assignments will be made to satisfy his identified needs and when possible to be commensurate with his interests.

The general course objectives are clearly described in the Student Handbook and the specific objectives are described in each unit.

All the criteria which the student is asked to attain and by which his grade will be determined are similarly described in detail.

The Student affirms that he will attend to the assigned tasks of the course and conscientiously follow the course procedures.

The Student warrants to:

1. attend class as and when required.
2. perform all assignments diligently and to keep appointments with the instructor as and when required.
3. maintain an accurate and unbiased record of his progress and efforts in this course, not under the direct instructor supervision, in the required Student Log Form.
4. maintain an attitude of honesty in his dealings with the instructor, even to admission of failure to perform in accordance with the terms of this agreement.

The Instructor and The Student jointly affirm the intention of cooperating in all matters anticipated and unanticipated to assure the student's successful completion of this course.

Dated_____

Student_____ Instructor_____

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APPENDIX B

QUESTIONNAIRE FOR STUDENTS

DIRECTIONS: Respond honestly to the following questions in sentence form. Be sure that they have sufficient detail and are clear. As in all work you perform for this class, you are asked to write in your mature style. Avoid fragments or other violations of good English structure and usage.

1. Does the method of this course as described in the first meeting appeal to you? _____

_____

_____

2. How much time do you estimate is reasonable for you to spend on assignments each week? _____

_____

3. How do you feel about letter grades for each assignment?

Check:

_____ insist on them

_____ would like them

_____ don't care

_____ prefer instruction criticism

4. Do you consider the number of different assignments to be important? Would many revisions of relatively few assignments help you to learn as much as few or no revisions of many assignments? _____

_____

_____

5. Do you believe that you can be trusted to perform to the best of your ability with the degree of independence planned for this class? Why? _____

_____

6. One purpose of this class is to stimulate your desire to perform well and to provide you with all the help necessary to do so. Do you think that you can make a firm 'contract' not to quit? _____

_____

_____

7. Do you like the idea of writing on only those subjects which you choose? Why? _____

_____

_____

8. How do you feel about the system of controls, rewards, and punishments now utilized in schools? What would you change if you had the power to do so? What suggestions can you make concerning the operation of this class?_____

_____

_____

_____

_____

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Name (optional)_____

January 1969

APPENDIX C

PIERCE COLLEGE EXPERIMENTAL ENGLISH I

FINAL QUESTIONNAIRE

Has the class helped you in any of these ways? (If yes, check)

_____ Valuing learning for its own sake

_____ Wanting to work

_____ Becoming more interested in college

_____ Solving personal problems which interfere with learning

_____ Other

_____

_____

_____

Has the class influenced you in any of these ways? (If yes, check)

_____ Becoming less responsible

_____ Having less interest in learning

_____ Other

_____

_____

_____

How many hours per week did you average working on assignments?

_____ 0-2 _____ 5-6 _____ 9 or more

_____ 3-4 _____ 7-8

Were you able to manage your time and effort well enough to accomplish the goals of the course?

_____ Yes _____ No

Have you improved in your self-management ability as a result of this course?

_____ Not at all _____ A fair amount

_____ A little _____ A great deal

_____

_____

Do you learn better from:

_____ 1. rewriting material

_____ 2. writing new papers with concentration on improving inadequacies of past papers.

_____ 3. Other

_____

_____

In which areas did you improve the most?

_____ Use of source materials

_____ Organization of ideas

_____ Writing mechanics

_____ Choosing appropriate topic

_____ Objectives

_____ Format

_____ Footnotes, bibliography usage

_____ Style and vocabulary

_____ Other

_____

_____

Which aspects of this program helped you most?

_____ Individualized assignments

_____ Instructor-student conferences on course work

_____ Instructor counseling on other matters

_____ Freedom from pressure

_____ Treatment as a mature, responsible individual

_____ Other

_____

_____

Some students have suggested changes for this course. Which would you recommend?

_____ More class meetings

_____ Mandatory conferences

_____ Program extended to all courses

_____ Group discussions

_____ Other

_____

_____

Please compare your learning in the experimental class with that in an average one.

_____ More

_____ Same

_____ Less

_____

_____